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Application No. 10/572,853  
Amendment dated April 24, 2008  
Reply to Office Action of January 24, 2008

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APR 24 2008

Docket No.: 80246(302741)  
(PATENT)

**REMARKS**

Claims 12-14, 16-22, 26-29, and 33-38 are pending in this application. Claims 12, 26, and 33 are amended by this response to simply be written in independent form. No new matter is added.

**Claims 12-14, 16-22, and 33-38 were rejected under 35 U.S.C. 102(b) as being anticipated by Nagano et al. (Characteristics of wheat-flour dough using *Enterobacter cloacae* GAO with and without yeast, Journal of Food Science 56(1): 106-108, 1991).**

Though Nagano discloses that *Enterobacter cloacae* GAO exists in apple leachate, Nagano does not anticipate the claimed invention of claim 12, and clearly not claims 26 and 33. Nagano does not disclose that *Enterobacter cloacae* GAO lives in a symbiotic relationship with plants as required by independent Claims 12, 26, and 33. The symbiotic relationship between *Enterobacter cloacae* GAO and plants is generally unknown. "A facultative anaerobic gram-negative bacterium which lives in a symbiotic relationship exclusively with a plant" in Claims 12, 26 and 33 is not disclosed in Nagano.

The specification at paragraphs 7 and 8 discusses that the immunopotentiators of the claimed invention are often contained in plants themselves and are often components or products of the bacteria which live in a symbiotic relationship with the plants.

"It has been reported that *Pantoea agglomerans* protects plants from fungi or other bacteria by producing antibiotics and performs phosphorus and nitrogen fixation. (citations omitted) Therefore, it is considered that *Pantoea agglomerans* is always present in plants and plays a role to give benefits to plants. Thus, its living mode is regarded as "symbiosis" but not "parasitism." In addition we have demonstrated that the active component to potentiate the immunity is contained in *Pantoea agglomerans*. Also, we have found that the low molecular weight lipopolysaccharide obtained from this

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bacterium has preventive effects on human and mouse diseases..."  
(Specification paragraph 7)

In such circumstance, we have conceived the idea of establishing a method for producing a fermented plant extract using *Pantoea agglomerans* as a method for producing a safe and inexpensive immunopotentiator." (Specification paragraph 8)

To obtain an immunopotentiator derived from natural product that is safe when ingested, it is useful to extract the component from the edible plants or efficiently culture the bacterium that lives in a symbiotic relationship with the edible plant to acquire its component or product. (Specification, paragraph 13) The cited reference does not anticipate claim 12 because it does not disclose that *Enterobacter cloacae* GAO lives in a symbiotic relationship with plants. The cited reference nowhere discloses *Pantoea* and therefore cannot possibly anticipate claims 26 and 33.

Further, it is known in the art that *Enterobacter cloacae* has endotoxin (lipopolysaccharide) and produces enterotoxin (causative agent of food-poisoning). However, in Nagano et al., Agric. Biol. Chem., 1988, 52(5), p.1301-1302, (attached) it is mentioned that *Enterobacter cloacae* GAO does not produce an enterotoxin-like substance. (The Safety of Leavening Bacterium, Nagano et al., Agric. Biol. Chem., 1988, 52(5), p.1302) *Enterobacter cloacae* GAO is a different strain of bacteria and not relevant to the symbiotic plant bacteria of claim 12 which is symbiotic with a plant.

Nagano does not anticipate the claimed invention because it does not disclose the required symbiotic relationship between the bacterium and the plant of the claimed invention, the relationship between the bacterium used in Nagano and plants is unknown. Also, the bacteria strains of *Enterobacter cloacae* used in Nagano are not relevant to not relevant to the symbiotic plant bacteria of claim 12 which is symbiotic with a plant. Applicants respectfully request withdraw of the rejection under 35 U.S.C. 102(b).

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In view of the above amendment, applicant believes the pending application is in  
condition for allowance.

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Respectfully submitted,

By *James E. Armstrong, IV*  
for *(signature)*

Registration No.: 42,266  
EDWARDS ANGELL PALMER & DODGE  
LLP

P.O. Box 55874  
Boston, Massachusetts 02205  
(202) 478-7375  
Attorneys/Agents For Applicant

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